AMENDMENTS TO THE CLAIMS

1. (Currently Amended)   A decoder for receiving a multiplexed stream which is obtained by multiplexing plural streams, and carrying out a decoding process for each stream included in the multiplexed stream in a parallel processing, the decoder comprising:

a demultiplexing unit ~~for separating~~ <u>operable to separate</u> the multiplexed stream into plural streams by a demultiplexing process;

a decoding unit ~~for carrying~~ <u>operable to carry</u> out a decoding process for one of the plural separated streams; and

a stream selection unit ~~for selecting~~ <u>operable to select</u> one of the plural separated streams and ~~outputting~~ <u>output</u> the selected one <u>of the plural separated streams</u> to the decoding unit, thereby converting a decoding target in the decoding unit from one stream to another stream<u>;</u>

<u>wherein said stream selection unit has a position detection unit operable to detect a stream switchable position in a stream being subjected to the decoding process, at which position the decoding unit can interrupt the decoding process, and</u>

<u>wherein said stream selection unit performs the stream selection such that the decoding process for the stream which is being processed is interrupted at the stream switchable position.</u>

2. (Canceled)

3. (Currently Amended)   The decoder of Claim 1, comprising:

a stream storage unit ~~for storing~~ <u>operable to store</u> each of the plural separated streams by a predetermined amount from a head or <u>a</u> stream switchable position thereof to a subsequent stream switch position, wherein

said stream selection unit performs the stream selection such that the <u>plural separated</u> streams are output from the stream storage unit[[,]] successively from a stream for which the process for storing the stream by the predetermined amount has been completed.

4. (Currently Amended) The decoder of Claim 1<u>,</u> wherein

each of the plural separated streams is obtained by carrying out a coding process for digital data repeatedly for each predetermined coding unit, and

the stream switchable position in each of the streams matches with a head position or <u>a</u> rearmost position of the coding unit.

5. (Currently Amended) A decoding method for carrying out a decoding process for a multiplexed stream which is obtained by multiplexing plural streams[[,]] in parallel for each of <u>the</u> streams included in the multiplexed stream<u>, the decoding method</u> comprising:

~~a demultiplexing process of~~ separating the multiplexed stream into plural streams;

~~a stream selection process of~~ selecting one of the plural separated streams such that a target of a decoding process is converted from one stream to another stream; and

~~a decoding process of~~ decoding one of the plural separated streams output by the stream selection process,

wherein said ~~stream selection process~~ selecting comprises detecting a stream switchable position in a stream being subjected to ~~the~~ said decoding ~~process~~, at which position ~~the~~ said decoding ~~process~~ can be interrupted, and performing ~~the stream selection~~ said selecting such that ~~the~~ said decoding ~~process~~ for the stream which is being processed is interrupted at the stream switchable position.

6. (Currently Amended) A decoder for subdividing plural streams into first multiplexing units, receiving a multiplexed stream which is obtained by switching the respective streams successively for each of the first multiplexing units, and carrying out a decoding process for each stream included in the multiplexed stream, the decoder comprising:

a stream conversion unit ~~for converting~~ operable to convert the multiplexed stream into a multiplexed stream composed of second multiplexing units which are obtained by gathering a plurality of the first multiplexing units together for the respective streams;

a switch position detection unit ~~for detecting~~ operable to detect a switch position of each of the multiplexing units in the multiplexed stream which has been converted by the stream conversion unit; and

a decoding unit ~~for carrying~~ operable to carry out a decoding process corresponding to each stream on the basis of the switch position information detected by the switch position detection unit.

7. (Currently Amended) The decoder of Claim 6, wherein

the second multiplexing unit corresponds to ~~is composed of from the~~ a head or the stream ~~switchable~~ switch position of each of the plural streams to ~~the~~ a subsequent stream switch position.

8. (Currently Amended) A decoder for subdividing plural streams into first multiplexing units, receiving a multiplexed stream which is obtained by switching each of the streams successively for each second multiplexing unit obtained by gathering a plurality of the first multiplexing units together for each of the streams, and carrying out a decoding process for each stream which is included in the multiplexed stream, the decoder comprising:

a stream conversion unit ~~for adding~~ operable to add switch position information indicating a switch position of each stream to the multiplexed stream, to perform conversion of the multiplexed stream;

a switch position detection unit ~~for detecting~~ operable to detect a switch position of each of the multiplexing units in the multiplexed stream which has been converted by the stream conversion unit; and

a decoding unit ~~for carrying~~ operable to carry out a decoding process corresponding to each stream, on the basis of switch position information detected by the switch position detection unit.

9. (Currently Amended) The decoder of Claim 8, wherein

the second multiplexing unit corresponds to ~~from~~ a head or the stream ~~switchable~~ switch position of each of the plural streams to a subsequent stream switch position.

10. **(Currently Amended)** A decoding method for subdividing plural streams into first multiplexing units, receiving a multiplexed stream which is obtained by switching each of the streams successively for each of the first multiplexing units, and carrying out a decoding process for each stream included in the multiplexed stream, the decoding method comprising:

~~a stream conversion process of~~ converting the multiplexed stream into a multiplexed stream composed of second multiplexing units which are obtained by gathering a plurality of the first multiplexing units together;

~~a switch position detection process of~~ detecting a switch position of each of the multiplexing units in the multiplexed stream which has been converted by ~~the stream conversion process~~ said converting; and

~~a decoding process for~~ decoding each stream, which is carried out ~~correspondingly to~~ in correspondence with the stream on the basis of the switch position information detected by said detecting ~~the switch position detection process~~.

11. **(Currently Amended)** A decoding method for subdividing plural streams into first multiplexing units, receiving a multiplexed stream which is obtained by switching each of the streams successively for each second multiplexing unit obtained by gathering a plurality of the

- 15 -

first multiplexing units together for each of the streams, and carrying out a decoding process for each stream included in the multiplexed stream, the decoding method comprising:

a stream conversion process of adding switch position information indicating a switch position of each stream to the multiplexed stream, to perform conversion of the multiplexed stream;

a switch position detection process of detecting a switch position of each of the multiplexing units in a multiplexed stream which has been converted by the stream conversion process said adding; and

a decoding process for decoding each stream, which is carried out correspondingly to in correspondence with the stream, on the basis of the switch position information detected by the switch position detection process said detecting.

12. (Currently Amended) A multiplexer for multiplexing plural streams which are obtained by coding plural digital data, and outputting a multiplexed stream, the multiplexer comprising:

a position detection unit for detecting operable to detect a switchable position in a stream to be multiplexed, at which position a decoding process for the stream can be interrupted, and operable to output a signal indicating a decoding switchable position; and

a multiplexing unit for carrying operable to carry out a multiplexing process of dividing each of the streams at the switchable position to generate divided stream parts corresponding to

each stream and multiplexing the respective streams <u>with the signal indicating the decoding</u> <u>switchable position</u> taking the divided stream part as a unit, to output the multiplexed stream.

13. (Canceled)

14. (Currently Amended) The multiplexer of Claim 12<u>,</u> wherein

each of the streams is obtained by carrying out a coding process for digital data repeatedly for each predetermined coding unit, and

the stream switchable position of each of the streams matches with a head position or <u>a</u> rearmost position of the coding unit.

15. (Currently Amended) A multiplexing method for multiplexing plural streams which are obtained by coding plural digital data[[,]] to generate a multiplexed stream<u>, the</u> <u>multiplexing method</u> comprising:

~~a position detection process of~~ detecting a switchable position in a stream to be multiplexed, at which position a decoding process for the stream can be interrupted<u>, and</u> <u>outputting a signal indicating a decoding switchable position</u>; and

~~a multiplexing process of~~ dividing each of the streams at the switchable position to generate divided stream parts corresponding to each stream, and unifying the divided stream parts by the respective streams to generate the multiplexed stream <u>which are multiplexed with the</u> <u>signal indicating the decoding switchable position</u>.

16. (Currently Amended)   The multiplexing method of Claim 15, wherein

each of the divided stream ~~part~~ parts includes a plurality of multiplexing units each

having a predetermined stream length.

17. (Currently Amended)   A multiplexing method for carrying out a multiplexing

process for plural streams which are obtained by coding plural digital data[[,]] to generate a

multiplexed stream, the multiplexing method comprising:

a ~~position detection process of~~ detecting a switchable position in each stream, at which a

decoding process for the stream can be interrupted;

a ~~division process of~~ dividing each stream by a predetermined stream length[[,]] to

generate divided stream parts as multiplexing units; and

a ~~header information addition process of~~ adding[[,]] to a head of each of the divided

stream parts[[,]] header information for identifying a corresponding stream, wherein

a flag is added to header information corresponding to a divided stream part, an end

position of which matches with a switchable position of the stream, for indicating that the end

position matches with the switchable position of the stream.

18. (New)   A decoder for receiving a multiplexed stream which is obtained by

multiplexing plural multiplexing units, and carrying out a decoding process for each multiplexing

unit included in the multiplexed stream, the decoder comprising:

a stream selection unit operable to select one of the plural multiplexing units and output the selected one of the plural multiplexing units to a decoding unit, thereby converting a decoding target in the decoding unit from one multiplexing unit to another multiplexing unit;

wherein said decoding unit is operable to carry out a decoding process for the multiplexing unit converted by the stream selection unit;

wherein said stream selection unit has a position detection unit operable to detect a stream switchable position in a multiplexing unit being subjected to the decoding process, at which position the decoding unit can interrupt the decoding process; and

wherein said stream selection unit performs the multiplexing unit selection such that the decoding process for the multiplexing unit which is being processed is interrupted at the stream switchable position.